ABSTRACT

According to certain embodiments of the present invention, there is provided a mounting arrangement for a magnetoencephalography (MEG) system headrest assembly forming a portion of a SQUID dewar and having a fixed headrest and an array of sensors, wherein a sensor array plate positions the sensors relative to the headset. A plurality of first rods interconnecting the array plate and the movable mounting member. A plurality of second rods are fixed at one of their ends relative to the dewar and are connected at their opposite ends to the movable mounting member. Each one of the first and second rods is composed of material expandable and contractible with changes in temperature, whereby the movable mounting member tends to be moved in one direction toward or away from the sensor array plate, and tends to be moved in an opposite direction away from or toward the array plate, resulting in temperature changes affecting the first and second rods, so that the sensor array plate and its sensors maintain a substantially constant spacing between the sensors and the headrest with changes in temperature. A plurality of second rods are fixed at one of their ends relative to the dewar and are connected at their opposite Each one o the rods is composed of material expandible and contractable with changes in temperature, whereby the movable mounting member tends to be moved in one direction toward or away from the sensor array plate, and tends to be moved in an opposite direction away from or toward the array plate resulting in temperature changes affecting the first and second rods, so that the sensor array plate and its sensors maintain a substantially constant spacing between the sensors and and headrest with changes in temperature.